FIG.1

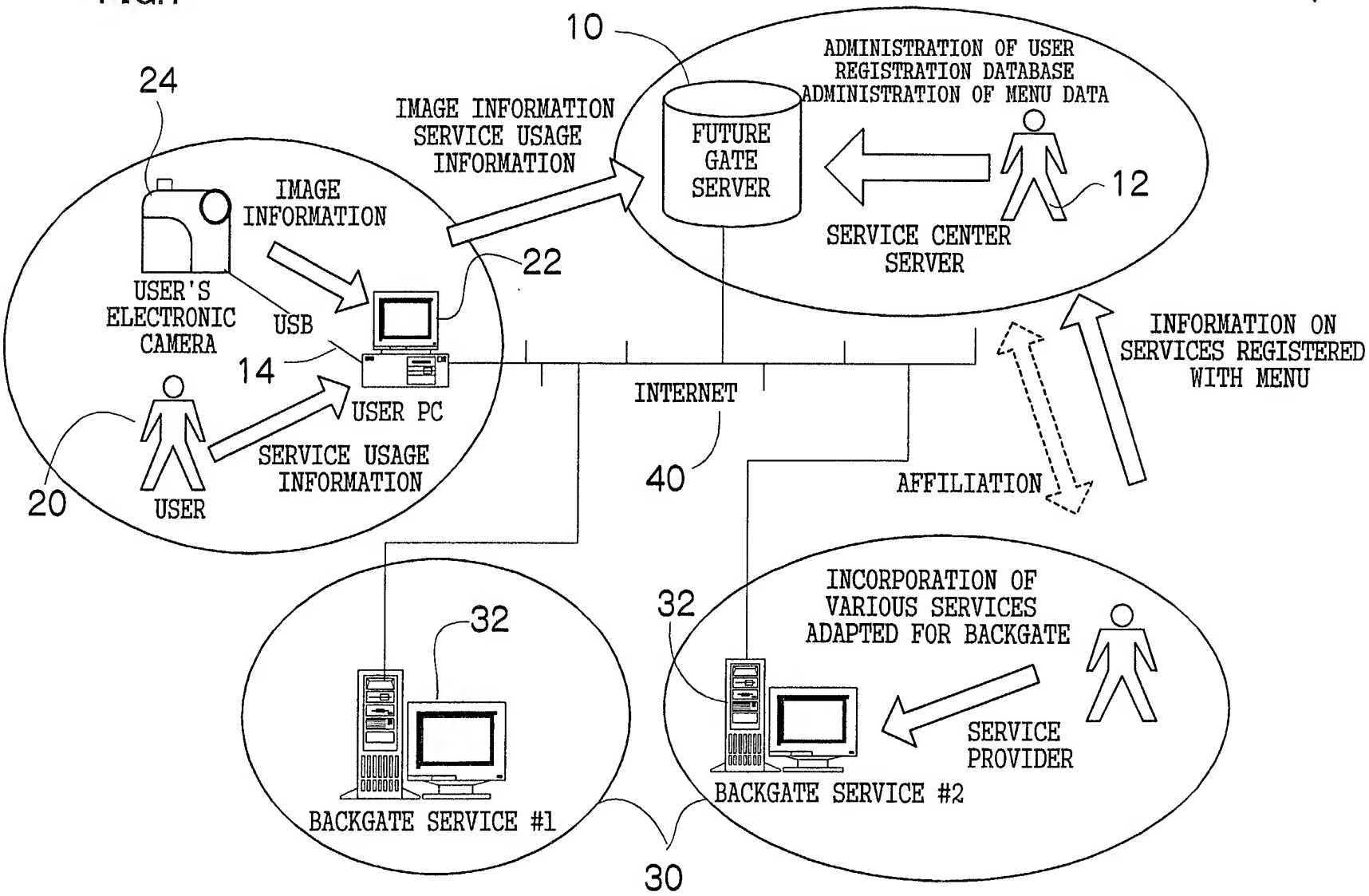

10
ADMINISTRATION OF USER REGISTRATION DATABASE
ADMINISTRATION OF MENU DATA
FUTURE GATE SERVER
12
SERVICE CENTER SERVER
24
IMAGE INFORMATION SERVICE USAGE INFORMATION
IMAGE INFORMATION
USER'S ELECTRONIC CAMERA
USB
22
14
USER PC
SERVICE USAGE INFORMATION
20
USER
INTERNET
40
INFORMATION ON SERVICES REGISTERED WITH MENU
AFFILIATION
32
BACKGATE SERVICE #1
32
INCORPORATION OF VARIOUS SERVICES ADAPTED FOR BACKGATE
SERVICE PROVIDER
BACKGATE SERVICE #2
30

FIG.2

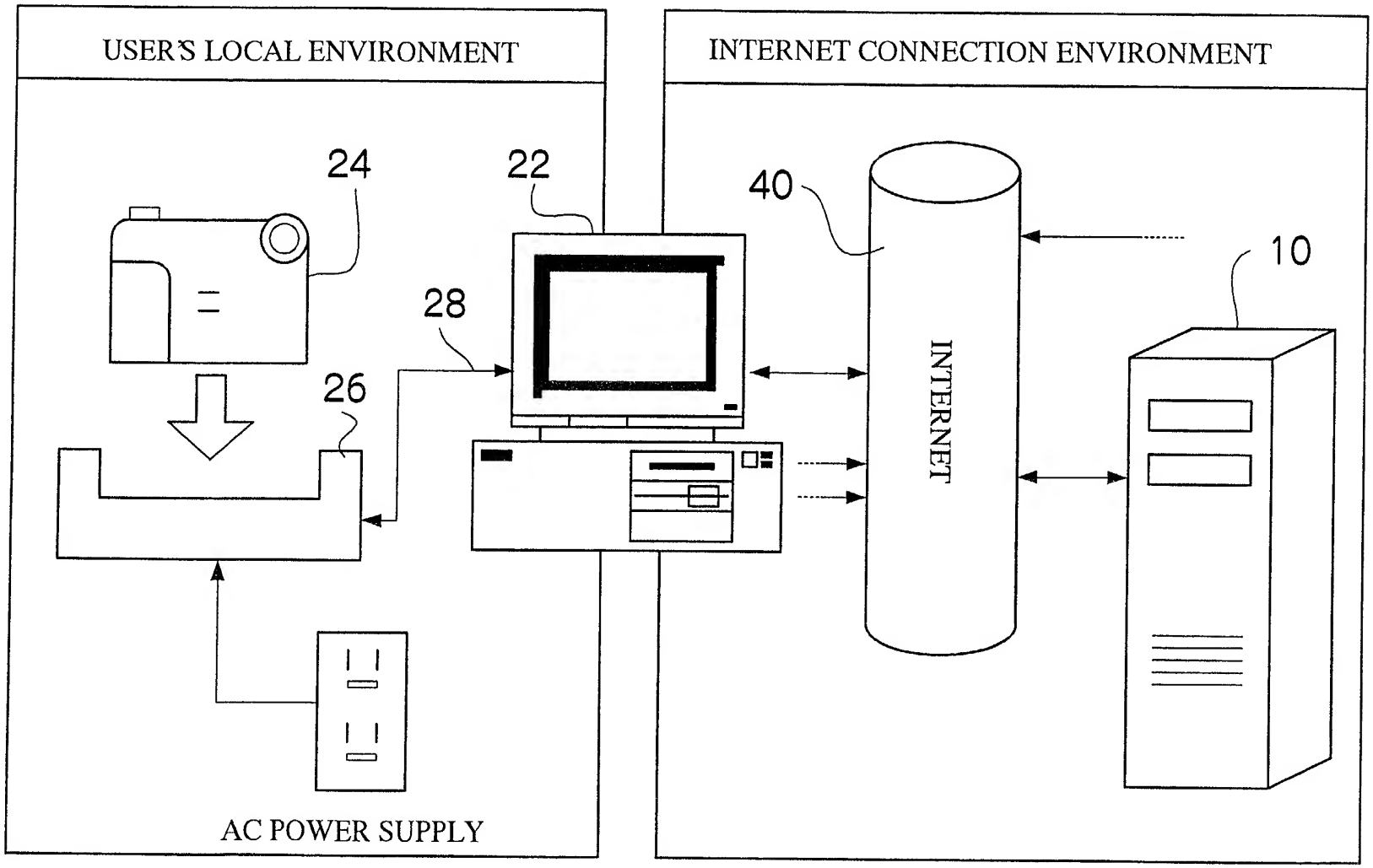

USER'S LOCAL ENVIRONMENT
INTERNET CONNECTION ENVIRONMENT
24
22
40
10
28
26
INTERNET
AC POWER SUPPLY

FIG.3

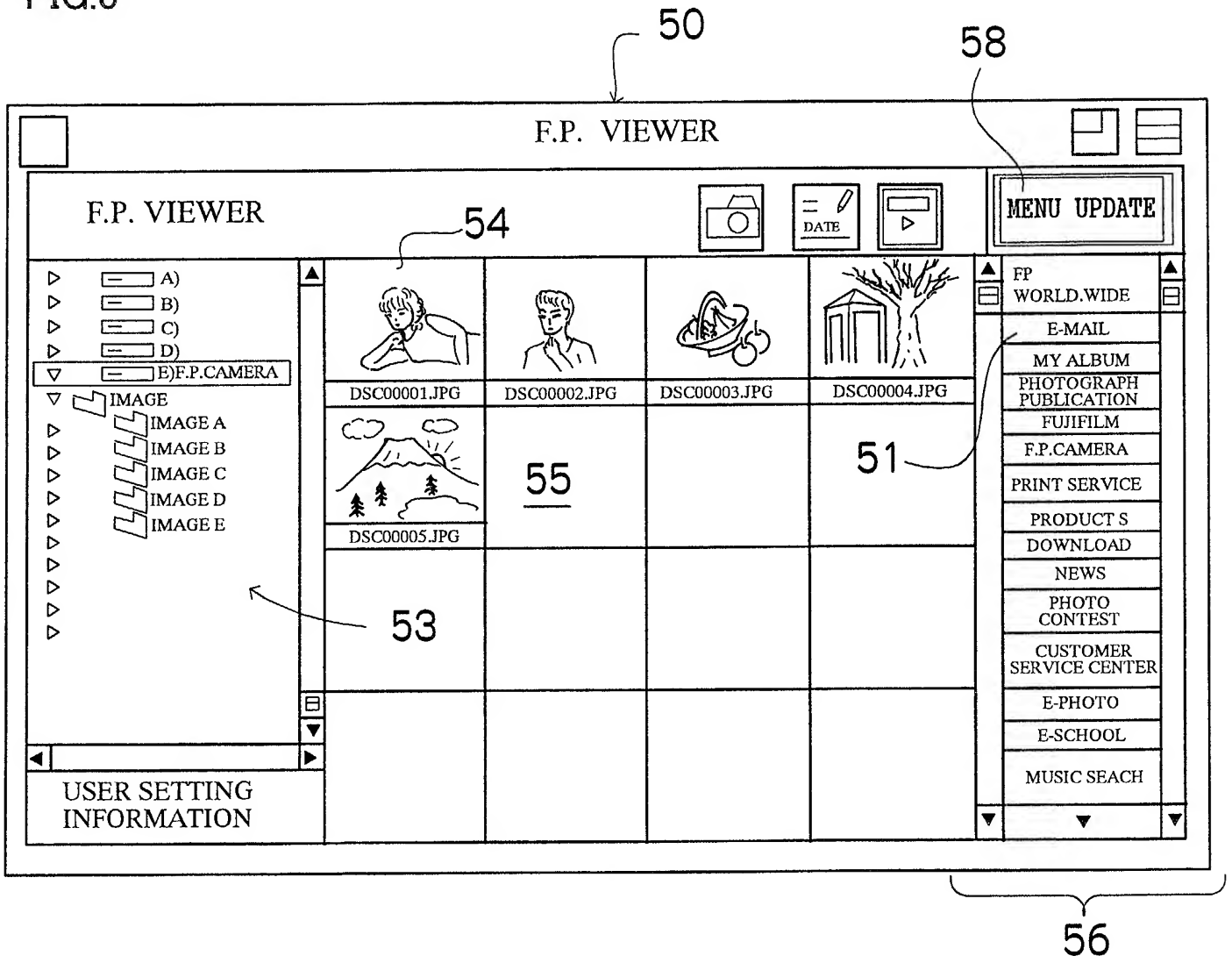

50
58
F.P. VIEWER
F.P. VIEWER
MENU UPDATE
DATE
54
A)
B)
C)
D)
E)F.P.CAMERA
IMAGE
IMAGE A
IMAGE B
IMAGE C
IMAGE D
IMAGE E
DSC00001.JPG
DSC00002.JPG
DSC00003.JPG
DSC00004.JPG
DSC00005.JPG
55
51
53
USER SETTING INFORMATION
FP WORLD.WIDE
E-MAIL
MY ALBUM
PHOTOGRAPH PUBLICATION
FUJIFILM
F.P.CAMERA
PRINT SERVICE
PRODUCT S
DOWNLOAD
NEWS
PHOTO CONTEST
CUSTOMER SERVICE CENTER
E-PHOTO
E-SCHOOL
MUSIC SEACH
56

FIG.4

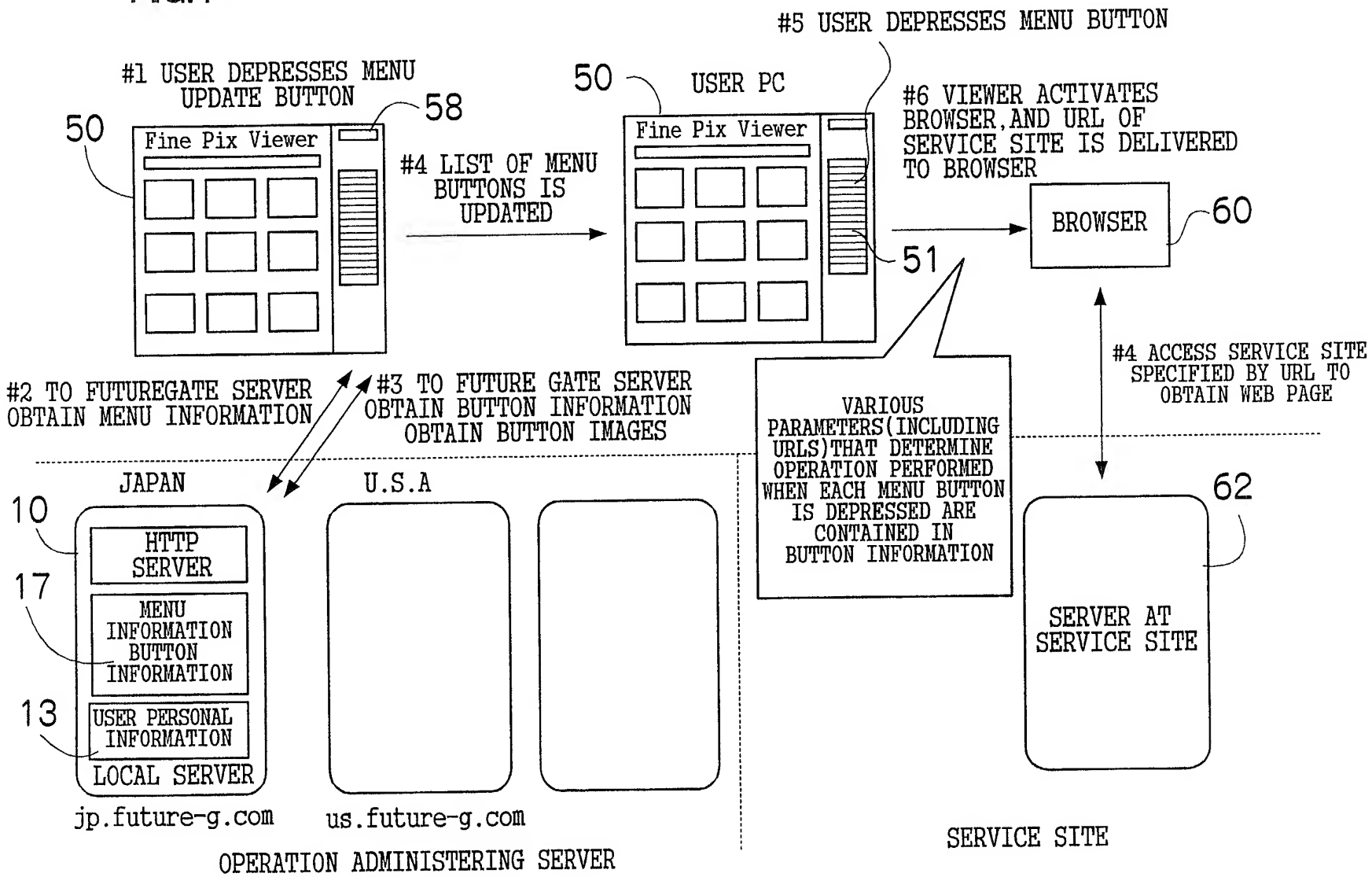

#1 USER DEPRESSES MENU UPDATE BUTTON
50
58
Fine Pix Viewer
#4 LIST OF MENU BUTTONS IS UPDATED
50
USER PC
Fine Pix Viewer
#5 USER DEPRESSES MENU BUTTON
#6 VIEWER ACTIVATES BROWSER, AND URL OF SERVICE SITE IS DELIVERED TO BROWSER
BROWSER
60
51
#2 TO FUTUREGATE SERVER OBTAIN MENU INFORMATION
#3 TO FUTURE GATE SERVER OBTAIN BUTTON INFORMATION OBTAIN BUTTON IMAGES
#4 ACCESS SERVICE SITE SPECIFIED BY URL TO OBTAIN WEB PAGE
VARIOUS PARAMETERS(INCLUDING URLS)THAT DETERMINE OPERATION PERFORMED WHEN EACH MENU BUTTON IS DEPRESSED ARE CONTAINED IN BUTTON INFORMATION
JAPAN
U.S.A
10
HTTP SERVER
17
MENU INFORMATION BUTTON INFORMATION
13
USER PERSONAL INFORMATION
LOCAL SERVER
62
SERVER AT SERVICE SITE
jp.future-g.com
us.future-g.com
OPERATION ADMINISTERING SERVER
SERVICE SITE

FIG.5

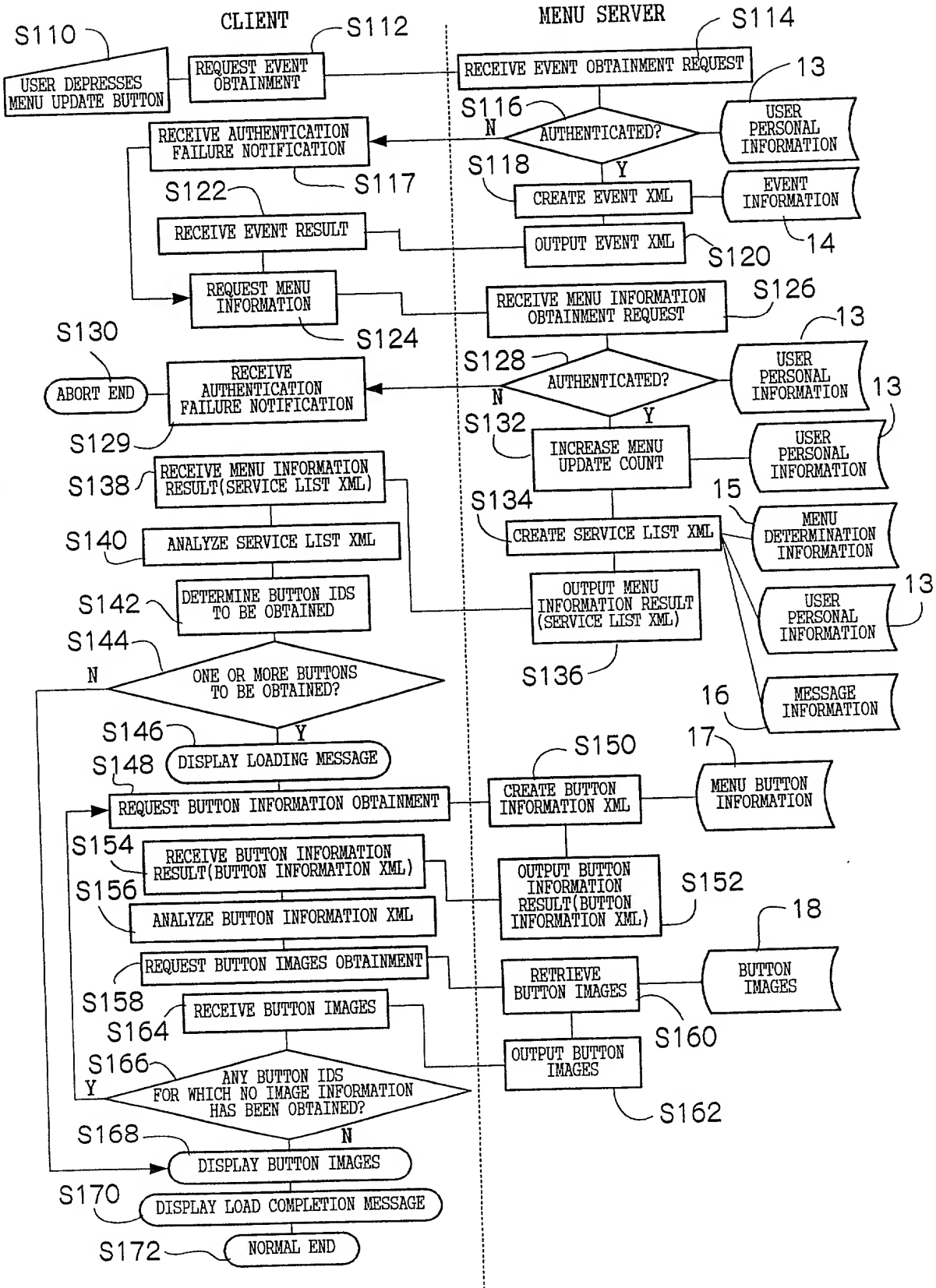

CLIENT
MENU SERVER
S110
USER DEPRESSES MENU UPDATE BUTTON
S112
REQUEST EVENT OBTAINMENT
S114
RECEIVE EVENT OBTAINMENT REQUEST
13
USER PERSONAL INFORMATION
S116
AUTHENTICATED?
N
Y
RECEIVE AUTHENTICATION FAILURE NOTIFICATION
S117
S118
CREATE EVENT XML
EVENT INFORMATION
14
S120
OUTPUT EVENT XML
S122
RECEIVE EVENT RESULT
REQUEST MENU INFORMATION
S124
S126
RECEIVE MENU INFORMATION OBTAINMENT REQUEST
S128
AUTHENTICATED?
S130
ABORT END
RECEIVE AUTHENTICATION FAILURE NOTIFICATION
S129
S132
INCREASE MENU UPDATE COUNT
S134
CREATE SERVICE LIST XML
15
MENU DETERMINATION INFORMATION
S136
OUTPUT MENU INFORMATION RESULT (SERVICE LIST XML)
S138
RECEIVE MENU INFORMATION RESULT(SERVICE LIST XML)
S140
ANALYZE SERVICE LIST XML
S142
DETERMINE BUTTON IDS TO BE OBTAINED
S144
ONE OR MORE BUTTONS TO BE OBTAINED?
16
MESSAGE INFORMATION
S146
DISPLAY LOADING MESSAGE
S148
REQUEST BUTTON INFORMATION OBTAINMENT
S150
CREATE BUTTON INFORMATION XML
17
MENU BUTTON INFORMATION
S152
OUTPUT BUTTON INFORMATION RESULT(BUTTON INFORMATION XML)
S154
RECEIVE BUTTON INFORMATION RESULT(BUTTON INFORMATION XML)
S156
ANALYZE BUTTON INFORMATION XML
18
BUTTON IMAGES
S158
REQUEST BUTTON IMAGES OBTAINMENT
RETRIEVE BUTTON IMAGES
S160
S162
OUTPUT BUTTON IMAGES
S164
RECEIVE BUTTON IMAGES
S166
ANY BUTTON IDS FOR WHICH NO IMAGE INFORMATION HAS BEEN OBTAINED?
S168
DISPLAY BUTTON IMAGES
S170
DISPLAY LOAD COMPLETION MESSAGE
S172
NORMAL END

FIG.6

EVENT OBTAINMENT REQUEST

REQUEST			REMARKS
ACCESS RESOURCE	xx_future-g.com/viewer/event		
PROPERTY	PROPERTY	NAME	
	USER ID	USER ID	
	USER PW	PASSWORD	
	EXE TIMES	NUMBER OF VIEWER ACTIVATION OPERATIONS	
	TOTAL MINUTES	TOTAL TIME FOR WHICH VIEWER HAS BEEN USED	
	LATEST INTERVAL	NUMBER OF DAYS THAT HAVE PASSED SINCE LAST USE OF VIEWER	
	(TEST FLAG)	(FLAG FOR TESTS)	PROPERTY THAT CAN BE ADDED USING VIEWER OPTION TOOL (TESTFLAG=1)

FIG.7

DATA TRANSMITTED FROM MENU SERVER TO CLIENT AS MENU INFORMATION

ELEMENT (PARAMETER NAME)	DATA FORMAT	DISCRIPTION
session-id	64 OR LESS LATERALLY HALF CHARACTERS	STRING ISSUED BY SERVER
tool-tip	255BYTES	DESCRIPTION TEXT FOR MENU
loading-msg-id	INTEGER(INT 4BYTES)	0-4294967295 0-1000000000 FOR EACH TIME DISPLAY 1000000001-FOR SINGLE DISPLAY
loading-msg-sentence	255BYTES	MESSAGE TEXT
complete-msg-id	INTEGER(INT 4BYTES)	0-4294967295 0-1000000000 FOR EACH TIME DISPLAY 1000000001-FOR SINGLE DISPLAY
complete-msg-sentence	255BYTES	MESSAGE TEXT
complete-msg-url	255BYTES	URL OF www PAGE OPENED WHEN LOADING IS COMPLETED
button-count	INTEGER(INT 4BYTES)	NUMBER OF BUTTONS
button-id	INTEGER(INT 4BYTES)	BUTTON IDS(ONE OR MORE) 0-4294967295

FIG.8

EXAMPLE OF TRANSMITTED MENU INFORMATION XML

```
<?xml version="1.0"encoding="UTF-8"?>
<!DOCTYPE response SYSTEM"servicelist.dtd">
<response>

   <session-id>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</session-id>
   <service-list>
     <tool-tip>WELLCOME ,TO FinePix INTERNET SERVICE!</tool-tip>
     <loading-msg-id>12</loading-msg-id>
     <loading-msg-sentence>DURING LOAD</loading-msg-sentence>
     <complete-msg-id>13</complete-msg-id>
     <complete-msg-sentence>LOAD COMPLETE</complete-msg-sentence>
     <complete-msg-url></complete-msg-url>
     <button-count>5</button-count>
     <button-id>1</button-id>
     <button-id>45</button-id>
     <button-id>56</button-id>
     <button-id>22<button-id>
     <button-id>4</button-id>

   </service-list>
</responce>
```

FIG.9

CONTENTS OF DATA TRANSMITTED FROM MENU SERVER TO CLIENT AS BUTTON INFORMATION

ELEMENT (PARAMETER NAME)	DATA FORMAT	DESCRIPTION
button-id	INTEGER(INT 4BYTES)	BUTTON ID 0-4294967295
service-id	INTEGER(INT 4BYTES)	SERVICE ID 0-4294967295
caption	255BYTES	BUTTON NAME TEXT*RESERVATION TAG
view-category		DISPLAY CATEGORY*RESERVATION TAG
service-name	255BYTES	SERVICE NAME
condition-flag	0x0000=OPERATE REGARDLESS OF CONDITIONS 0x0001=ENABLED ONLY DURING CONNECTION TO ACTUAL MACHINE(STORAGE MODE) 0x0002=ENABLED ONLY DURING CONNECTION TO ACTUAL MACHINE(VG MODE) 0x0100=ENABLED ONLY DURING SELECTION OF IMAGES 0x8000=ALWAYS DISABLED	CONDITION FLAG USED TO DETERMINE WHETHER BUTTON IS TO BE ENABLED OR DISABLED (ONE OR MORE LOGICAL ORS) EXAMPLE) 0x0103=CONNECTION TO ACTUAL MACHINE AND IMAGE SELECTION REQUIRED
action-type	0x0001:ONLY SERVICE ACCESS COUNT 0x0010:ONLY IMAGE TRANSFER USING GFNAP2 0x0100:ONLY USER INFORMATION TRANSMISSION	CONDITION FLAG USED TO DETERMINE OPERATION WHEN BUTTON IS DEPRESSED (ONE OR MORE LOGICAL ORS)
upload-img-min	INTEGER(INT 4BYTES)	MINIMUM NUMBER OF TRANSFERRED IMAGES
upload-img-max	INTEGER(INT 4BYTES)	MAXIMUM NUMBER OF TRANSFERRED IMAGES
upload-img-type	0X0001:STILL IMAGE FILE 0X0010:ANIMATED IMAGE FILE 0x0100:SOUND FILE	CONDITION FLAG USED TO DETERMINE TYPE OF FILE THAT CAN BE UPLOADED(LOGICAL OR AVAILABLE)
link-address	255BYTES	URL OF WWW PAGE FOR CONNECTION SERVICE
link-option	255BYTES	ARGUMENT FOR LINK ADDRESS
enable-tool-tip	255BYTES	BALLOON HELP TEXT FOR ENABLED BUTTON

EP 0 945 795 A2

2097T0 "S/T9hOOT

FIG.10

disable-tool-tip	255BYTES	BALLOON HELP TEXT FOR ENABLED BUTTON
enable-button	255BYTES	URL OF IMAGE FILE
disable-button	255BYTES	URL OF IMAGE FILE
img-x-min(RESERVED)	INTEGER(INT 4BYTES)	MINIMUM NUMBER OF PIXELS(LATERAL)
img-y-min(RESERVED)	INTEGER(INT 4BYTES)	MINIMUM NUMBER OF PIXELS(LONGITUDINAL)
img-x-max(RESERVED)	INTEGER(INT 4BYTES)	MAXIMUM NUMBER OF PIXELS(LATERAL)
img-y-max(RESERVED)	INTEGER(INT 4BYTES)	MAXIMUM NUMBER OF PIXELS(LONGITUDINAL)
img-size-max (RESERVED)	INTEGER(INT 4BYTES),UNIT:KBYTES	MAXIMUM FILE SIZE
img-format(RESERVED)	EXTENSION DESCRIBED USING COLONS	TRANSMITTABLE IMAGE FORMAT
appear-date (RESERVED)	yyyymmdd	DISPLAY START DATE AND TIME
disappear-date (RESERVED)	yyyymmdd	DISPLAY END DATE AND TIME

FIG.11

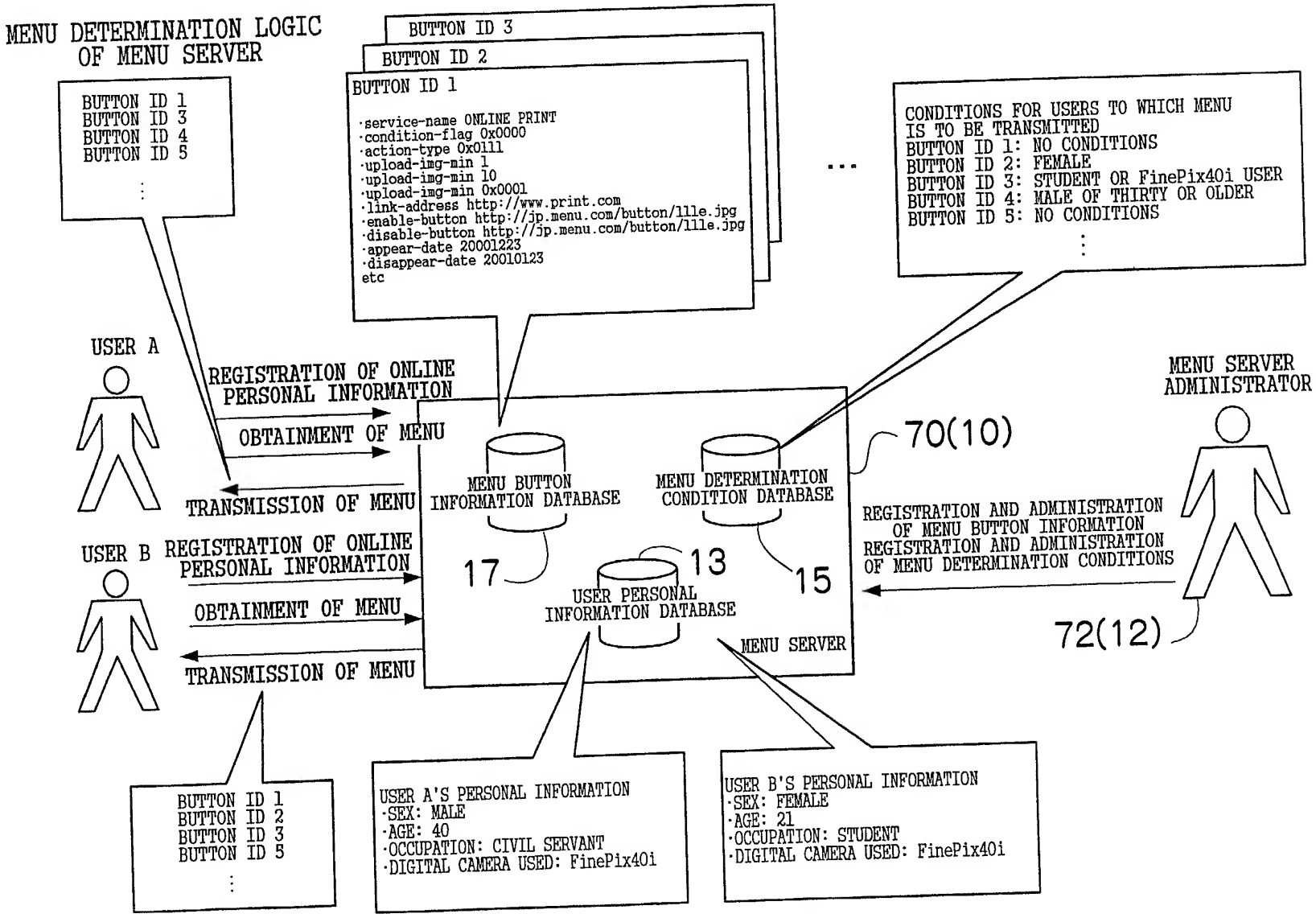
EXAMPLE OF TRANSMITTED BUTTON INFORMATION XML

```
<?xml version="1.0"encording="UTF-8"?>
<!DOCTYPE response SYSTEM"button.dtd">
<response>

    <button-id>1</button-id>
    <service-id>1</service-id>
    <caption>FDi SERVICE</caption>
    <view-category>3</view-category>
    <service-name>fdi</service-name>
    <condition-flag>0x0100</condition-flag>
    <action-type>0x0001</action-type>
    <upload-img-min>1</upload-img-min>
    <upload-img-max>3</upload-img-max>
    <upload-img-type>0x0001</upload-img-type>
    <link-address>http://www.xxxxxxx.co.jp/</link-address>
    <link-option></link-option>
    <enabled-tool-tip>UP TO THREE IMAGES CAN BE SELECTED</enabled-tool-tip>
    <disabled-tool-tip>SELECT IMAGES<disabled-tool-tip>
    <enabled-button>http://jp.future-g.com/viewer/button/xxxxxxxx.jpg</enabled button>
    <disabled-button>http://jp.future-g.com/viewer/button/xxxxxxxx.jpg</disabled-button>
    <img-x-min>320</img-x-min>
    <img-y-min>240</img-y-min>
    <img-x-max>640</img-x-max>
    <img-y-max>480./img-y-max>
    <img-size-max.>100</img-size-max>
    <img-format>jpg:gif:bmp</img-format>
    <appear-date>20010401</appear-date>
    <disappear-date>20010433</disappear-date>

</response>
```

FIG.12


MENU DETERMINATION LOGIC OF MENU SERVER
BUTTON ID 1
BUTTON ID 3
BUTTON ID 4
BUTTON ID 5
BUTTON ID 3
BUTTON ID 2
BUTTON ID 1
·service-name ONLINE PRINT
·condition-flag 0x0000
·action-type 0x0111
·upload-img-min 1
·upload-img-min 10
·upload-img-min 0x0001
·link-address http://www.print.com
·enable-button http://jp.menu.com/button/111e.jpg
·disable-button http://jp.menu.com/button/111e.jpg
·appear-date 20001223
·disappear-date 20010123
etc
CONDITIONS FOR USERS TO WHICH MENU IS TO BE TRANSMITTED
BUTTON ID 1: NO CONDITIONS
BUTTON ID 2: FEMALE
BUTTON ID 3: STUDENT OR FinePix40i USER
BUTTON ID 4: MALE OF THIRTY OR OLDER
BUTTON ID 5: NO CONDITIONS
USER A
REGISTRATION OF ONLINE PERSONAL INFORMATION
OBTAINMENT OF MENU
TRANSMISSION OF MENU
USER B
REGISTRATION OF ONLINE PERSONAL INFORMATION
OBTAINMENT OF MENU
TRANSMISSION OF MENU
MENU BUTTON INFORMATION DATABASE
MENU DETERMINATION CONDITION DATABASE
USER PERSONAL INFORMATION DATABASE
MENU SERVER
17
13
15
70(10)
MENU SERVER ADMINISTRATOR
REGISTRATION AND ADMINISTRATION OF MENU BUTTON INFORMATION
REGISTRATION AND ADMINISTRATION OF MENU DETERMINATION CONDITIONS
72(12)
BUTTON ID 1
BUTTON ID 2
BUTTON ID 3
BUTTON ID 5
USER A'S PERSONAL INFORMATION
·SEX: MALE
·AGE: 40
·OCCUPATION: CIVIL SERVANT
·DIGITAL CAMERA USED: FinePix40i
USER B'S PERSONAL INFORMATION
·SEX: FEMALE
·AGE: 21
·OCCUPATION: STUDENT
·DIGITAL CAMERA USED: FinePix40i